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## KEY ISSUES IN THE BROWNFIELDS DEBATE

The concept of "Brownfields" emerged as a natural outgrowth of groups and individuals seeking to reverse the tide of urban decay. One impediment which readily presented itself to such groups, including those seeking to build low-income housing for the homeless, was the environmental liability issues associated with abandoned commercial and industrial properties. Such properties are abundantly located in virtually every "other side of the tracks" community in America's urban areas. The Northeast/Midwest Institute<sup>5</sup> coined the term "Brownfields" to describe this phenomenon. While not all Brownfields are located in urban areas, the environmental policy and sociological context of the Brownfields problem is decidedly urban in character.

In a narrow sense, EPA's Brownfields Initiative refers to a specific agency effort focusing on finding ways to remove items which are viewed as obstacles to investment by prospective lenders and developers. Many concerns over the specific elements of that program, including the need for meaningful community involvement, environmental health considerations, job creation and training, federal interagency cooperation, public/private partnerships, and others began to surface. In order to fully address these important issues, they must be considered within a larger context.

*"[South Central Los Angeles] is a community characterized by tons and tons of vacant lots, some of them left as a result of the 1992 rebellion. Others have existed for 20 and 30 years. My community also is characterized by auto shops, paint shops, plating companies, radiator companies, and others--some of which are unpermitted uses within our residential community. Our community suffers one of the highest incidence of asthma throughout California. It sits next to the largest industrial base in this country called the Alameda Corridor. The neighborhood has pretty much been neglected by the city of Los Angeles in terms of street repairs, storm drainage cleaning, and so forth.*

*"We see the Brownfields Initiative as a real opportunity to change some of what exists in our community. A lot of sites have been left behind by owners who could not free up or sell land because of contamination--whether they were once gas stations or whatever. So we see ourselves losing a lot of potential for good, clean, safe, and sound development.*

*"We also have concerns about some Brownfields initiatives. Even when one is something we tend to like, we feel the prospective purchaser agreements must have more teeth and accountability [to the community]. We feel strongly that community participation must be involved. We would never like to see something cleaned up and then a liquor store put in my community. We must have a say on the front-end as to what kind of development follows cleanup.*

*"In terms of jobs and job training, people in my community have strong concerns about who benefits from job [opportunities]. There is justifiably much discussion about military conversion, aerospace conversion, and conversion jobs. But how does the community where people have a lack of skills get involved in the discussion? We want to be able to bring the nonworking and underemployed into the discussion. These are some of the concerns we would like to see addressed."*

Robin Canon  
Concerned Citizens of South Central Los Angeles  
Oakland, CA, Public Dialogue

In a larger sense, the Brownfields issue propelled to national prominence the issues related to **"Brownfields versus Greenfields"** development. If society cannot find ways of revitalizing urban areas, development necessarily encroaches more and more on the nonrenewable resource of pristine natural space. The emergence of the Brownfields issue signals recognition of the ecologically untenable nature of "Greenfields" development or urban sprawl. A coalition which includes Bank of America, Greenbelt Alliance, Low-Income Housing Fund, and the Resources Agency of California, recently published *Beyond Sprawl: New Patterns of Growth to Fit the New California*. It concluded that the "acceleration of sprawl has surfaced enormous social, environmental, and economic costs, which until now have been hidden, ignored, or quietly borne by society. The burden of these costs is

becoming very clear. Businesses suffer from higher costs, a loss in worker productivity, and underutilized investments in older communities."<sup>6</sup>

The Brownfields issue is yet another aspect of an intensifying set of systemic problems related to residential segregation, disinvestment of inner-city areas, urban sprawl, degradation of the urban environment, and the polarization between urban and non-urban communities along lines of age, life style, race, socioeconomic status, and other spatially-related social divisions. These are endemic to a severe crisis--environmentally, economically, socially, culturally, and otherwise--in urban America. Environmental justice encompasses very clearly the inextricable linkage between these issues. The Subcommittee emphatically asserts that all stakeholder groups must recognize that the inescapable context for discussion of the Brownfields issue is environmental justice and urban revitalization.

The following summarizes some of these pressing issues related to urban revitalization, Brownfields, and the achievement of truly healthy and sustainable communities--both urban and rural. The Subcommittee proceeds from the recognition that one of the nation's most pressing environmental problems is the state of its cities. This crisis is fundamentally an ecological one--in both the natural and the human sense.<sup>7</sup> While one may choose to deny their existence, it is increasingly evident that they cannot be ignored.

### ***I. Understanding the Nature of the Urban Environment***

Based on environmental justice principles, the Subcommittee defines environment as "***the place where we live, where we work, and where we play.***"<sup>8</sup> This necessitates recognition of an urban ecosystem as consisting of four environments: natural, built, social, and cultural/spiritual. All four must be addressed in order to achieve healthy and sustainable communities. Hence, the debate over cleanup standards, environmental regulations, and liability safeguards must proceed from a realistic understanding of the environmental health and safety characteristics of the urban environment. The urban ecosystem shows clearly the relationship of these four environments, and the importance of the fourth environment--Cultural/Spiritual--to provide an understanding of shared values to achieve healthy environments and sustainable communities.

The characteristics of the urban environment include: (1) an oversaturation of communities with multiple sources of environmental pollution in highly congested spaces, (2) the co-existence of residential and industrial sites as a result of imprudent land use decisions, (3) a lack of documentation of most environmental health risks in urban communities, (4) the existence of as yet not understood effects of multiple, cumulative, and synergistic risks, (5) the absence of a comprehensive environmental enforcement and compliance activity which results, for some communities, in a virtual non-existence of such activity, (6) the lack of health services and adequate information on environmental risks, (7) the severe decay in the institutional infrastructure, and (8) a high degree of social alienation and decay caused by living in degraded physical environments.

The profusion of abandoned and/or contaminated industrial and commercial sites is a legacy of industrialization and patterns of growth which foster social decay by treating land, natural resources, communities, and populations as expendable and disposable commodities. Any redevelopment strategy must be thoroughly examined to ascertain its guiding vision and potential pitfalls. It must not be the vehicle for development of yet another generation of hazardous sites. It must not be the instrument of ecologically-unsustainable or socially-unjust development.

### ***II. The Ecological Importance of Urban Areas***

In choosing to concentrate on urban revitalization as a major focus, the Subcommittee underscores the societal and ecological importance of cities. Besides being the centers of economic, technological, educational, and cultural activity in an increasingly multiracial United States, urban environments pose vastly important opportunities for advancing human understanding of environmental protection needs for the 21st century. Solving these questions will have enormous implications for habitat development not only for the United States but also a shrinking and increasingly interdependent world.

*"We are looking at environmental justice in a regional context. It is a vision of making links between different communities across the region with common perspectives of how we look at social issues as well as environmental issues. Based upon that, we seek to develop strategies that help to address the polarization between suburban and inner city areas. Working on Brownfields gives us an opportunity to make this tangible."*

Carl Anthony  
Urban Habitat Program  
Oakland, CA, Public Dialogue

The paradox that faces us at the end of the 20th century is that urban areas are ecologically the most efficient forms of human spatial organization, while at the same time they are among the most polluted. Urban areas present pressing challenges on the cutting edge of environmental protection and sustainable development, including such challenges as multiple, cumulative, and synergistic risks; pollution prevention; creation of

environmentally-related jobs; development of "green," non-polluting, and environmentally restorative urban development; and building of mass transit and ecologically-beneficial infrastructures; as well as a host of other issues.

Given the massive scale of human development, these are challenges the Nation cannot afford to ignore. Urban environmental issues must be addressed from the perspective of their natural ecosystems (for example, water sheds, air sheds, etc.) and their social ecosystems (for example, neighborhoods, metropolitan areas, regions, etc). As exemplified by the "Brownfields redevelopment versus Greenfields development" debate, the course of development in urban areas has enormous impacts for the past, present, and future ecological integrity of rural areas.

The Subcommittee believes that an affirmative commitment to urban revitalization will lead to a necessary evaluation of traditional social policy and value systems. At this point, the nation lacks the tools to measure the true costs--economic, environmental, cultural, social, and spiritual--of the untenable and unsustainable treatment of goods, communities, and population as expendable and disposable commodities. The Subcommittee attests to a critical need for the nation to embrace the concepts of reuse, recycling, renewal, revitalization, and rebirth. The ecological crisis exemplified by the state of the urban environment offers such an opportunity.

### **III. Reframing the Urban/Rural Dichotomy**

One context for understanding the Brownfields issue is the issue of urbanization. Urbanization refers to the formation, growth, and transformation of human communities as centers of industrial, commercial, social, and cultural activity. From an ecological perspective, this affects both urban and rural areas in an interdependent manner. A multiplicity of development issues such as residential patterns, displacement through gentrification, transportation policy, the flow of capital, and others profoundly affect patterns of growth. Environmental justice recognizes the inextricable linkages between these as economic, environmental, cultural, and social issues.

Twentieth century human development is characterized by the interrelated twin phenomena of industrialization and urbanization. The emergence of centers of industrial activity always gave rise to a corresponding appearance of proximate population centers. Historically, society has been deficient in its attention to issues surrounding such "spontaneously" developing communities.<sup>9</sup> Urbanization refers not merely to events in

#### **Industrialization and Urbanization**

Nothing better illustrates the severity of the twin phenomena of industrialization and urbanization than Richard Monastersky's 1994 article in *Science News*, entitled "Earthmovers: Humans take their place alongside wind, water, and ice" ( Vol. 146, Dec. 24 & 31, 1994, pp. 432-433).

According to the article, studies suggest that human activity, as of 1994, now transforms the earth's surface at a rate that exceeds natural geological processes. It is estimated that homo sapiens move an average of seven tons of earth a year for every man, woman, and child on the planet.

the Northern "rust-belt" cities but also to the phenomenon that is taking place along the U.S.-Mexico border in the form of a mindless urban sprawl called "colonias."

The Subcommittee argues that only through an affirmative declaration of the importance of the urban environment can the Nation begin to bridge the dichotomy between urban and rural areas. We need to develop models which unify rather than pit urban versus non-urban concerns. The urban sprawl issue forces us to envision new ecological relationships which are metropolitan, regional, national, and global.

By its very nature, the Brownfields issue forces us to look at an entire community as we try to balance environmental concerns and economic possibilities. In many cases, it becomes an ideal vehicle for envisioning the future in new ways.

In addition, even though this report focuses primarily on urban revitalization/Brownfields issues, the NEJAC Subcommittee is mindful that Brownfields issues exist in rural areas. Brownfields issues are also matters of great concern on Native American lands and in the U.S. territories, most of which is rural in nature. Nonetheless, development patterns have reached the point where urbanization has direct economic, environmental, social, and ecological consequences for rural lands. All references to Indigenous peoples, Native Americans, and Tribes includes American Indians and Alaskan Natives.

#### **IV. Confronting the Issue of Race and Class**

Embedded into America's industrial legacy are a host of issues related to race and class. The nation cannot ignore the very obvious and central place that issues of race occupy in the daily lives of all its citizens. There exists a "great racial divide" in American society. This divide is manifest through our treatment of issues related to urban America.

Not more than six months after the historic First National People of Color Environmental Leadership Summit held in 1991, the largest urban disturbance in American history took place in South Central Los Angeles. Events in Los Angeles raised the question of how long the "quiet riots"<sup>10</sup> (a phrase drawn from the title of a 20-year retrospective to the 1968 Kerner Commission Report) in America's central cities will continue to remain unheard. Issues at the heart of these "quiet riots" are inextricably linked to environmental justice and Brownfields, such as residential segregation, economic disinvestment, environmental pollution, inaccessibility to health care, educational disadvantage, lack of employment opportunity, and the inextricable link between living in degraded physical environments, alienation, and destructive violence.

All policy makers must find every opportunity to forthrightly confront issues of race and class in American society. Not to do so is shortsighted for the following reasons: (1) Race is a matter at the heart of many issues related to urban America and we as a nation must learn how to talk about it in constructive ways; (2) Healthy and sustainable communities cannot be achieved without fully understanding how racism seriously devalues communities; and (3) American society in the 21st century will be increasingly multiracial and multicultural. Dramatic demographic shifts are taking place. The choices we make today will decide whether or not 21st-century America will witness a social turmoil or a multiracial and multicultural renaissance where the gifts of all peoples can flourish.<sup>11</sup> It is imperative that guidance be provided--particularly to our youth who will inherit the consequences of choices we make today--to reinforce a sense of purpose for a common future and to focus them towards a goal of narrowing and eliminating racial divisions.

#### **V. Urban Revitalization and Community-Driven Models of Redevelopment**

"Urban revitalization" is very different from "urban redevelopment." The two concepts are not synonymous and should not be confused with each other. Urban revitalization is a bottom-up process. It proceeds from a community-based vision of its needs and aspirations and seeks to build capacity, build partnerships, and mobilize resources to make the vision a reality. Revitalization, as we define it, does not lead to displacement of communities through gentrification that often results from redevelopment policies. Governments must not simply view communities as an assortment of problems but also as a collection of assets. Social scientists and practitioners have already compiled methodologies to apply community planning models.



There must be opportunities for full articulation of the importance of public participation in Brownfields issue. While public participation is cross-cutting in nature, its meaning is shaped within the context of concrete issues. It is not merely a set of mechanical prescriptions but a process of bottom-up engagement that is "living." With regards to Brownfields and the future of urban America, Public Dialogue participants were emphatic that **"without meaningful community involvement, urban revitalization simply becomes urban redevelopment."**

John Kretzmann and John L. McKnight summarized the key steps in applying community planning models in their book, *Building Communities from the Inside Out: A Path Toward Finding and Mobilizing A Community's Assets*:

- ▶ Mapping completely the capacities and assets of individuals, citizens' associations, and local institutions
- ▶ Building relationships among local assets for mutually beneficial problem-solving within the community
- ▶ Mobilizing the community's assets fully for economic development and information sharing purposes
- ▶ Convening as broadly representative a group as possible for the purposes of building a community vision and plan
- ▶ Leveraging activities, investments and resources from outside the community to support asset-based, locally-defined development.

## VI. Community Mapping and Community-Based Environmental Protection

Mapping offers us an entirely new way of looking at and thinking about the world. A principal tenet of community-based planning is the thesis that a community which has a strong sense of itself is capable of being more self-defined, self-directed, and self-controlled, and thus more capable of shaping its own future.<sup>12</sup>

There appears to be an ever-expanding number of community groups who are expressing an interest in mapping one's own community. These include organizations concerned about environmental justice, environmental and public health, community planning and development, and other issues related to achieving healthy and sustainable communities. This "spontaneous" development is a matter of no small consequence. Recent projects to incorporate community mapping as an important element include the Asian Pacific Environmental Network (Laotian girls mapping their Richmond, California neighborhood); Tucsonians for a Clean Environment (development in south Tucson, Arizona); worker training projects such as Southwest Network for Environmental and Economic Justice, Asian Pacific Environmental Network, University of California/Berkeley, and the University of Massachusetts/Lowell;

### LAND VIEW II A Community Mapping Tool

LAND VIEW II--an electronic atlas with the ability to do thematic mapping--is a unique electronic tool which can be the hub of a virtual revolution in community mapping. As described by EPA, LAND VIEW II is an innovative community right-to-know software tool. In the form of an electronic atlas, published on CD-ROM discs, LAND VIEW can be used on standard personal computers. While LAND VIEW lends itself to a myriad of applications, its greatest significance lies in its useability and adaptability by communities.

LAND VIEW II is the product of a collaboration among EPA, the Bureau of the Census, and the National Oceanic and Atmospheric Administration (NOAA). As the product of a multi-agency cooperative effort that was developed with substantial community input, LAND VIEW II bespeaks of what government should be doing in terms of providing tools that can empower the public.

The Subcommittee incorporated demonstrations of LAND VIEW II as a major part of the Public Dialogues. The universally positive reception by the communities underscored the Subcommittee's belief that mapping can be a highly empowering scoping, documenting, and planning tool. Such tools give a community the ability to visualize and "know" itself.

and the Environmental Health Coalition, (chemical hazards in mixed-use Barrio Logan community in San Diego, California).<sup>13</sup> One of the most powerful elements of the landmark United Church of Christ Commission for Racial Justice report *Toxic Wastes and Race in the United States*<sup>14</sup> was its maps. Virtually every proposal on empowerment zones and Brownfields uses mapping.

Projects with more resources such as the Hunter College/Greenpoint-Williamsburg Environmental Benefits Program have done true computer-based GIS projects. Eugenio Maria de Hostos Community College in the South Bronx is undertaking a major community-university partnership project in this area. The San Francisco-based Urban Habitat Program has done mapping of military toxic waste sites and the impact of defense base closures in East Bay Flatlands areas.<sup>15</sup> Several EPA regional offices also have undertaken GIS studies. For example, EPA Region III is utilizing GIS in Chester, Pennsylvania and at the Portsmouth, Virginia Superfund site. In varying degrees of complexity, these projects offer readily applicable tools for conducting community mapping projects.

Exciting new tools exist for communities to participate in conducting environmental inventories and environmental mapping. These include right-to-know information, electronic mapping systems like LandView II, more sophisticated geographic information systems (GIS), and others. It is critical that these tools be made available to communities. Beside its implications for community-based planning, community mapping will be critical to addressing issues of multiple, cumulative, and synergistic risk. By fully engaging the community, these tools provide a way to begin addressing data gap problems in oversaturated urban communities where virtually none of the environmental health risks have yet to be documented. Thus, community mapping provides a key link to making progress on issues such as cumulative risk and the concept of establishing the "baseline aggregate environmental load" for a given community.

EPA has begun to embrace the concept of "**community-based environmental protection**." This is an outgrowth of an appreciation that the elements of an ecosystem are more than natural and physical, but also social and cultural. It has its roots in placed-based community-wide targeted geographic initiatives and the concept of ecosystem management.<sup>16</sup> As we look to a new generation of environmental protection, the use of community mapping becomes a strategy to coherently integrate diverse issues, locations, and communities into a community-based planning model. The import of these tools for addressing urban revitalization/Brownfields issues is strikingly apparent.

## **VII. Executive Order 12898 and Government Reinvention**

Recognizing that environmental justice and the issues related to Brownfields are by their very nature cross-cutting and multi-disciplinary, the Subcommittee sought to engage a debate over the use of Executive Order 12898-- *Federal Actions to Ensure Environmental Justice in Minority and Low Income Communities*. The concept of an executive order about environmental justice was included in a Transition Paper to the Clinton-Gore Administration developed by a coalition of grassroots environmental justice groups, civil rights organizations, and scholars. Part of the vision that guided this proposal was the overriding need to reinvent the federal government and adopt a comprehensive approach toward addressing a set of related social, economic, and environmental issues, such as unequal protection, environmental racism, and disproportionate impact of environmental pollution on communities of color and low income communities.<sup>17</sup>

Signed by President Clinton on February 11, 1994, Executive Order 12898 called upon 17 federal agencies to develop strategic plans to address environmental justice. The agencies included EPA, the U.S. Department of Health and Human Services (HHS), the Department of Defense (DoD), the U.S. Department of Justice (DOJ), the U.S. Department of Energy (DOE), the U.S. Department of Housing and Urban Development (HUD), the U.S. Department of Transportation (DOT), the U.S. Department of Interior (DOI), and the U.S. Department of Commerce. The Executive Order also established the IWG.

The Subcommittee took the position that only such an approach can begin to address the interrelated issues associated with urban revitalization and Brownfields. Throughout the Public Dialogues, the Subcommittee posed the question of whether or not Executive Order 12898 and the IWG can be

vehicles for coalescing a strategy for linking environmental justice to addressing one of the most intractable problems of our times--the state of the urban environment.

There is no greater challenge than recasting a vision of how government should work. This must start with the original and most enduring proponents of government reinvention, such as community residents engaged in overcoming systemic impediments to locally-based solutions. Environmental justice activists and many communities have taken leadership in applying their grassroots visions of healthy and sustainable communities to issues of government reinvention. In addition to the Public Dialogues, there have been many occasions--both formal and informal--where extremely worthwhile grassroots discussions of sustainability have taken place. National policy makers would benefit greatly from such discussions.

The role of the public sector is one of the most pressing issues in present American political discourse. The question reveals itself in virtually all issues surrounding the Brownfields debate, including the future of cities, urban sprawl, economic and environmental sustainability, racial polarization and social equity, defense conversion, transportation, public health, housing and residential patterns, energy conservation, materials reuse, pollution prevention, urban agriculture, job creation and career development, education, and the link between living in degraded physical environments, alienation, and destructive violence.

These issues translate into specific questions regarding (1) how the Brownfields Initiative can be most effectively implemented, and (2) a larger effort capable of coalescing the work of all federal agencies and imbuing them with a common mission capable of providing a truly authentic sign of hope to the American people.

Efforts to make Brownfields projects more effective include:

- ▶ linking with federal facilities cleanup and defense conversion
- ▶ coordinating job training and career development resources
- ▶ linking with transportation development, particularly inner city mass transit
- ▶ coordinating community wide environmental protection and public health strategies
- ▶ integrating pollution prevention and environmental cleanup activities
- ▶ linking with urban agriculture and public lands development
- ▶ integrating future materials use strategies and recycling
- ▶ incorporating energy conservation and green business development
- ▶ addressing housing development and residential pattern
- ▶ coordinating support for small business development

To approach these questions without a clear perspective on the relationship between communities and government reinvention would be imprudent. The original and most enduring proponents of government reinvention are community residents engaged in overcoming systemic impediments to locally-based solutions. The Public Dialogues illustrated in profound ways how communities have compelling visions of what constitutes healthy and sustainable communities. The heart and soul of an authentic government reinvention process is the many vibrant and coherent community-based visions of healthy and sustainable communities. Resources must be devoted to help craft these visions into coherent and compelling paradigms for positive change. Such community-based visions provide the compass for public policy discourse and government restructuring. ***By definition, genuine government reinvention cannot take place unless it is a community-driven process.***



### **VIII. Environmental Justice and the Next Generation of Environmental Protection**

When the environmental justice movement posited the notion that "people must speak for themselves" about an environment defined as "the place where we live, where we work, and where we play," it established a framework for functionally bridging the key components of emerging environmental policy, including ecosystem management and community-based environmental protection, equal protection, pollution prevention, cumulative risk, partnership building, programmatic integration, and accountability to the public.<sup>18</sup> This fact needs to be elevated as a major tenet of emerging environmental policy. Environmental justice is predicated upon the fact that the health of the members of a community, both individually and collectively, is a product of physical, social, cultural, and spiritual factors. It provides a key to understanding an integrative environmental policy which treats our common ecosystem as the basis for all life (human and non-human) and activity (economic and otherwise).

A systematic public discourse over issues of race and the environment began around the siting of hazardous waste and other noxious facilities. Initially, issues of race and the environment were understood only within the narrow context of the siting issue. To a large extent, those who are out of touch with communities continue to focus only on this issue. However, the issues associated with environmental justice have grown exponentially as more and more communities demand that their day-to-day issues--be they residential, occupational, or otherwise--be made part of the discourse over environmental policy.

Moreover, there exists the need to examine ways of integrating place-based approaches to environmental protection with sector-based approaches. This has enormous implications for industrial policy. In fact, the Brownfields issue is a critical nexus for understanding the need for such integration. More likely than not, any industrial sector which has entered its second generation and beyond will have large numbers of Brownfields sites. They are the inescapable byproducts of current patterns of industrial/urban development. Far thinking economic and environmental analysts realize that one must take into account the benefits and costs of the entire "life-cycle" of an individual plant or facility or industrial sector. Failure to do so inevitably results in passing costs from one generation to another. Thus, Brownfields represent the costs which were externalized during the 1950s and must be paid for today. The urban sprawl/Brownfields issues makes it evident that the natural and human ecosystems may be fast approaching the limits of their capacity to maintain such development patterns. There are grave perils to a failure in not turning this way of doing business on its head so that such considerations are addressed at the front end.

Likewise, pollution prevention must be integrated into all Brownfields projects as an overarching principle. Brownfields projects can provide unique opportunities to apply the pollution prevention concept in practical ways. Most Brownfields communities have both cleanup and toxic release problems. Turning them into livable communities means that both have to be addressed. For example, if you do cleanup without pollution prevention, the same set of problems will reemerge. The community must be involved in developing pollution prevention strategies because they often have the most practical and innovative ideas.

Pollution prevention must be integrated into all Brownfields projects as an overarching principle. Brownfields projects can provide unique opportunities to apply the pollution prevention concept in practical ways. Most Brownfields communities have both cleanup and toxic release problems. Turning them into livable communities means that both have to be addressed. For example, if you do cleanup without pollution prevention, the same set of problems will reemerge. To date, the concept of pollution prevention has been noticeably absent from the Brownfields dialogue. To avoid yet another generation of Brownfields, pollution prevention must be aggressively introduced **before** plans for redevelopment have become entrenched. Education about pollution prevention must take place at the earliest stages. While most stakeholders have a basic understanding of pollution prevention as a general concept, residents, developers, financiers, and other stakeholders must translate this general concept into a common jargon and practical models. The community must be involved in developing pollution prevention strategies because they often have the most practical and innovative ideas. They have the most at stake when it comes to ensuring that a site never returns to its past brownfields state.

Environmental justice represents a new vision borne out of a community-driven process whose essential core is a transformative public discourse over what are truly healthy, sustainable, and vital communities.

It flows out of 500 years of struggle for survival by people of color in a multiracial and multicultural society where they were excluded from the full benefits of citizenship or equal rights by one group. It was not coincidental that civil rights leader Martin Luther King, Jr. traveled to Memphis, Tennessee in 1968 to address "an economic and environmental justice dispute for sanitation workers striking for better wages, improved working conditions, and equity with other municipal workers."<sup>19</sup>

Over the past decade, environmental justice has made tremendous contributions to understanding the profound value of public participation and accountability in formulating public policy and making decisions about the environment. It has reshaped the discourse around public health and environment risks to include the path-breaking issue of multiple, cumulative, and synergistic risk. It has pressed for a new paradigm for conducting community-driven science and holistic place-based, and systems-wide environmental protection. Environmental justice will be the seed-bed for the development of a set of new frameworks and tools truly capable of producing physically and psychologically healthy, economically and ecologically sustainable, and culturally and spiritually vital communities.

Environmental justice is uniquely equipped to provide the visions, frameworks, and tools to address one of the most critical issues of our times. The future of America's cities is a matter of great concern not only to its residents but also to the future of habitats generally, both urban and rural. The crisis in urban America is fundamentally an ecological one--in the fullest sense of the word.<sup>20</sup> Indeed many issues posed in the Brownfields debate will determine America's fate not only as a society, but as a civilization. A key contribution of environmental justice over the next several years will be a transformative discourse over how to achieve healthy and sustainable communities in the 21st century.

### **Suggested Pollution Prevention Resources to be Provided by EPA**

Different communication tools (for example, fact sheets and handbooks) could be developed to describe the following:

#### Community Planning

- How to include pollution prevention and waste minimization into the early stages of the redevelopment planning process.
- Questions to ask during the planning process.
- Lists of federal and state contacts.

#### Development and Investment Tools

- Information on financing and insurance products to support pollution prevention and waste minimization.
- State and local government program options that encourage pollution prevention and waste minimization.

#### Technical Information

- Industry-specific (for example, dry cleaners, electroplaters, etc.) Products on the technical how-tos of incorporating pollution prevention and waste minimization into their facility.
- Information on substituting toxic substances with safer substances.
- Case studies of actual businesses that have adopted pollution prevention and waste minimization into their industrial or commercial processes.